

REMARKS

Claims 1-11 remain pending.

Claim Amendments

By this amendment, claims 12-16 are cancelled, and the limitations thereof inserted into claims 4 and 5. No new matter is added by this amendment.

Restriction Requirement

Applicants acknowledge the withdrawal from consideration of non-elected claims 1-3 and 9-11. Claims 4-8 remain under examination.

Rejection under 35 USC 102(b) over Miyamoto et al

Claims 4, 5, 7, 12, 13 and 15 stand rejected under 35 USC 102(b) as being anticipated by Miyamoto et al. This rejection respectfully is traversed to the extent deemed to apply to the claims as amended.

Miyamoto et al discloses in the Abstract a deproteinized natural rubber latex formed by deproteinizing a natural rubber latex by using protease of 0.02-0.25 PHR and a rosin salt of 2.5-5.0 PHR, and then centrifuging the product in the presence of an inorganic salt of 3-10 PHR.

Contrary to the opinion of the Examiner, a rosin salt is not a water soluble polymer which falls within the scope of the claimed invention. Rosin acid is primarily abietic acid which does not have the structure of a polymer. The reference discloses a rosin acid salt, including a metal salt of rosin acid, which is used as a surfactant in a deproteinizing step together with a protease.

By contrast, the recited water-soluble polymer has a bonding site due to at least one hydrophilic functional group selected from a hydroxyl group, a carboxyl group and an amide group and/or an ester bond, or a salt thereof, with a principal chain of the polymer having 100 to 5,000,000 carbon atoms (see page 12, line 24 to page 13, line 5 of applicants' specification in this regard).

Given such distinctions, the invention of claims 4, 5, and 7 (claims 12, 13 and 15 having been cancelled) is not anticipated by Miyamoto et al, and the rejection should be withdrawn.

Rejection under 35 USC 102(b) over Tanaka et al

Claims 4-8 and 12-16 stand rejected under 35 USC 102(b) as being anticipated by Tanaka et al '500 (which corresponds to U.S. Patent 5,910,567). This rejection respectfully is traversed to the extent deemed to apply to the claims as amended.

The disclosed method comprises adding protease, a surfactant, and water to natural rubber latex to deproteinize the latex.

Tanaka et al teaches the use of a surfactant selected from the group consisting of (a) an anionic surfactant, (b) an anionic surfactant, (c) an amphoteric surfactant, and (d) any combination thereof. See column 4, lines 9-12 of the '567 patent. However, the reference fails to teach or suggest the use of a water-soluble polymer (as defined) having a principal chain comprised of 100 to 5,000,000 carbon atoms as now required by claims 4 and 5.

Further, applicants do not intend that the surfactant function as the water-soluble polymer. The Examiner's attention is directed to the specification at page 14, lines 8-9 wherein the additional presence of a surfactant is provided for apart from the water-soluble polymer.

The rejection is thus without basis and should be withdrawn.

Rejection under 35 USC 103(a)

Claims 4-8 and 12-16 stand rejected under 35 USC 103(a) as being unpatentable over Tanaka et al '459 in view of Miyamoto et al and Tanaka et al '500. This rejection respectfully is traversed to the extent deemed to apply to the claims as amended.

The Tanaka et al '459 reference is directed to a process for producing raw rubber from deproteinized natural rubber. The process comprises coagulating rubber particles in a deproteinized natural rubber latex by (1) adding a specific nonionic surfactant

to the deproteinized natural rubber latex, and heating the latex to a temperature not lower than the cloud point of the nonionic surfactant; or alternatively, (2) adding a coagulation assistant selected from the group consisting of (a) an ionic surfacant, (b) an amphoteric surfactant, (c) a nonionic surfactant, (d) a nonionic or amphoteric oligomer or polymer, and (e) an anionic oligomer or polymer, to the deproteinized natural rubber latex, and then recovering the coagulated rubber particles.

However, the reference is silent with respect to the addition of a water-soluble polymer as specified by applicants' amended claims.

Also, it is noted that the nonionic surfactant or the coagulating assistant disclosed by the reference is added to the deproteinized natural rubber latex. This step is in contrast to applicants' method of adding the water-soluble polymer of the claimed invention to the natural rubber latex together with a protease in order to deproteinize the rubber latex. As a result, Tanaka fails to disclose or suggest the claimed invention.

The cited secondary references fail to overcome the deficiencies of the Tanaka reference. More specifically, the secondary Miyamoto and Tanaka references fail to suggest the addition of the water-soluble polymer recited in amended claims 4 and 5. It is also illogical to combine the teachings of the

secondary references with those of Tanaka '459 given the fact that Tanaka '459 treats a deproteinized rubber.

As such, the claimed invention is neither disclosed nor suggested by the cited references, taken either singly or in combination. The rejection is thus without basis and should be withdrawn.

The application is accordingly believed to be in condition for allowance, and an early indication of same is requested.

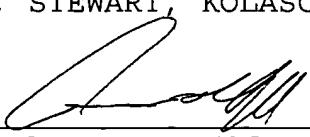
Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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